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Test Sequence and Required Quantity For CBRN Self-Contained Escape Respirators

Mr. Frank Palya, NIOSH 25 June 2003





Self-Contained Escape Test Sequence and Quantity

Test Order	Breathing Gas	Human Factors	Penetration and Permeation Testing	LRPL Test
Qty	12	5 - 11	6	30 -65
1.	Breathing Gas	Field of View	Hot Constant Storage	Donning
2		Fogging Resistance	Cold Constant Storage	LRPL
3		Flammability and Heat Resistance	Humidity	
4.			Transport. / Vibration	
5.			Drop	
6.			Live Agent System Testing	
7.			Note: 2 units Tested Before Environ / Trans. / Vib.	





Breathing Gas

Quantity Required	Test	Test Method
12	Breathing Gas Concentration	Human Subject Testing





Human Factors

Quantity: Total 5 - 11	Test	Test Method
1 - 3	Field of View (FOV)	NIOSH: CET-APRS-STP- CBRN-0312
3 - 9	Fogging Resistance	NIOSH: CET-APRS-STP- CBRN-0321
2	Flammability and Heat Resistance	Equipment IAW EN 136:1998

Note: 1. Same Respirators for FOV and Flame and Fogging Resistance

2. Tests shall be performed as listed, top to bottom







Penetration and Permeation Testing

Quantity: 6 Total	Test	Test Method
2	Permeation and	Similar to NIOSH SCBA GB and HD
	Permeation	Live Agent Test
4	High Temperature	MIL-STD-810F, Method 501.4 71°C
	Storage	(160°F) Constant; 5 Weeks
4 Low Temperator Storage	Low Temperature	MIL-STD-810F, Method 502.4.
	Storage	-31 °C/(- 24 °F) Constant; 3 Days
4	Humidity	MIL-STD-810E, Method 507.3
		Natural, Cycle 1, Quick Look.
4	Transportation /	MIL-STD-810F, Method 514.5.
	Vibration	U.S Highways; 3 Axes; 12 Hrs/Axis
4	Drop	3 Foot Drop; 1 Drop per Axis
4	Permeation and Permeation	Similar to NIOSH CBRN GB and HD Live Agent Test

Laboratory Respirator Protection Level Test (LRPL)

Quantity Required	Test	Test Method
30-65	Donning	To Be Determined
30-65	LRPL	Similar to -STP-CBRN-0352

Note: 1. Same Respirators will be used for all tests;

2. Tests shall be performed as listed, top to bottom







Questions

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